

REMARKS

Claims 1 through 22 are pending in this Application, of which claims 6 through 17 stand withdrawn from consideration pursuant to the provisions of 37 C.F.R. § 1.142(b). Accordingly, claims 1 through 5 and 18 through 22 are active.

Claim 1 has been amended for clarification and new claims 18 through 22 added. Care has been exercised to avoid the introduction of new matter. Adequate descriptive support for the present Amendment should be apparent throughout the originally filed disclosure, noting that new claims 19 through 22 essentially correspond to original claims 2 through 5 but made dependent upon claim 18. Applicants submit that the present Amendment does not generate any new matter issue.

Claims 1 through 5 were rejected under the second paragraph of 35 U.S.C. § 112 as indefinite.

In the statement of rejection the Examiner asserted that the claimed invention is confusing as to how the bottom of the trench is located inside the first dielectric film while the bottom of the trench is formed in the second dielectric film. This rejection is traversed.

In response claim 1 has been amended for clarification, noting that the previously included language with respect to the bottom of the trench has been deleted, thereby overcoming the stated basis for the imposed rejection. Clearly, one having ordinary skill in the art would have no difficulty understanding the scope of the now claimed invention, particularly when reasonably interpreted in light of and consistent with the written description of the specification, which is the judicial requirement. *Miles Laboratories, Inc. v. Shandon, Inc.*, 997 F.2d 870, 27 USPQ2d 1123 (Fed. Cir. 1993).

Applicants, therefore, submit that the imposed rejection of claims 1 through 5 under the second paragraph of 35 U.S.C. § 112 is not viable and, hence, solicit withdrawal thereof.

Claims 1 through 5 were rejected under 35 U.S.C. § 103 for obviousness predicated upon Parikh in view of Gates et al.

In the statement of rejection the Examiner maintained the position that Parikh discloses substantially the claimed structure, but does not disclose that the dielectric constant of the etching stopper is larger than that of the first and second dielectric films. The Examiner then considered that one having ordinary skill in the art would have been motivated to modify Parikh's device to arrive at the claimed invention in view of Gates et al. This rejection is traversed.

There is a substantial difference between the claimed semiconductor device and Parikh's semiconductor device such that even if Parikh's semiconductor device is modified as suggested by the Examiner, and Applicants do not agree that the requisite fact-based motivation has been established, the claimed invention would not result. *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988). This is because claim 1, as well as new independent claim 18, requires **the under surface of the metal interconnect be located inside the first dielectric film**. No such structure is disclosed or suggested by either of the applied references, including the primary reference to Parikh.

It should be apparent from Fig. 4 of Parikh that the bottom of line 450, which may be said to correspond to the metal interconnect of the claimed invention, is flush with the bottom of the third dielectric layer 416, which may be said to correspond to the first dielectric film of the present invention. The fifth dielectric layer 420 and the fourth dielectric (etch stop) layer 418

illustrated in Fig. 4F of Parikh may be said to correspond to the second dielectric film and the etching stopper of the claimed invention, respectively. Clearly, in Parikh's structure, the under surface of the metal interconnect is **not located inside the first dielectric film** as in the claimed invention, but is flush therewith.

Based upon the foregoing it should be apparent that even if the applied references are combined as proposed by the Examiner, and again Applicants do not agree that the requisite fact-based motivation has been established, the claimed invention would not result. *Uniroyal, Inc. v. Rudkin-Wiley Corp., supra.*

Applicants, therefore, submit that the imposed rejection of claims 1 through 5 under 35 U.S.C. § 103 for obviousness predicated upon Parikh in view of Gates et al. is not factually or legally viable and, hence, solicit withdrawal thereof.

New claims 18 through 22.

New claims 18 through 22 are clearly free of the applied prior art for reasons previously argued with respect to rejection of claim 1 under 35 U.S.C. § 103, wherein arguments were also presented with respect to claim 18. Specifically, independent claim 18 specifies that the under surface of the metal interconnect is located inside the first dielectric film. However, in Parikh's structure, the under surface of the metal interconnect is **flush** with the first dielectric film. Claims 19 through 22 depend from independent claim 18. Accordingly, claims 18 through 22 are clearly free of the applied prior art.

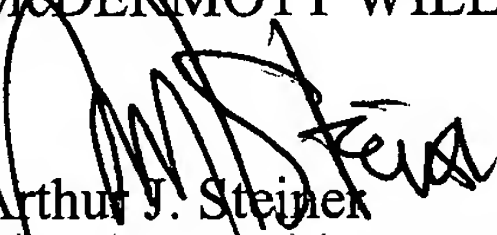
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Based upon the arguments submitted *supra*, it should be apparent that the imposed rejections have been overcome, and that all active claims are in condition for immediate allowance. Favorable consideration is, therefore, solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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